



# STIC Search Report

EIC 1700

STIC Database Tracking Number: 145315

**TO:** Jennifer Leung  
**Location:** REM 7A60  
**Art Unit:** 1764  
**February 16, 2005**

**Case Serial Number:** 10/722166

**From:** Kendra Banks  
**Location:** EIC 1700  
**REM 4B28**  
**Phone:** 571-272-2516

**Kendra.Mellerson@uspto.gov**

## Search Notes

No Cases Reported

US 6,413,479

TO BE SCANNED

PATNO IS 6413479

DATE: FEBRUARY 16, 2005  
LIBRARY: PATENT  
FILE: ALL

Your search request is:  
PATNO IS 6413479

Number of PATENTS found with your search request through:  
LEVEL 1... 1

Your search request has found 1 PATENT through Level 1.  
To DISPLAY this PATENT press either the KWIC, FULL, CITE or SEGMENTS key.  
To MODIFY your search request, press the M key (for MODFY) and then the ENTER key.

For further explanation, press the H key (for HELP) and then the ENTER key.

LEVEL 1 - 1 PATENT

1. 6413479 , July 2, 2002 , Reforming apparatus for making a co-reduced reformed gas, Kudo, Hitoshi - Hirakata, Japan (JP); Yamaga, Noriyuki - Hirakata, Japan (JP); Shinagawa, Mikio - Neyagawa, Japan (JP), 214001 (09), Matsushita Electric Works, Ltd., Osaka, Japan (JP), 03, December 24, 1998 - ASSIGNMENT OF ASSIGNEES INTEREST (SEE DOCUMENT FOR DETAILS) ., MATSUSHITA ELECTRIC WORKS, LTD. 1048, OAZA KADOMA, KADOMA-SHI OSAKA 571-8686 JAPAN, Reel and Frame Number: 009965/0959

CORE TERMS: reforming, combustion, heat, combustion chamber, gas, raw material, duct, oxidation, exhaust, chamber ...

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6413479

<=1> Get Drawing Sheet 1 of 21

July 2, 2002

Reforming apparatus for making a co-reduced reformed gas

REISSUE: November 26, 2003 - Reissue Application filed Ex. Gp.: 1764; Re. S.N. 10/722,166 (O.G. February 10, 2004)

APPL-NO: 214001 (09)

FILED-DATE: December 24, 1998

GRANTED-DATE: July 2, 2002

CORE TERMS: reforming, combustion, heat, combustion chamber, gas, raw material, duct, oxidation, exhaust, chamber ...

6413479 OR 6,413,479

Your search request has found no CASES.

To edit the above request, use the arrow keys. Be sure to move the cursor to the end of the request before you enter it.

To enter a new search request, type it and press the ENTER key.

What you enter will be Search Level 1.

For further explanation, press the H key (for HELP) and then the ENTER key.

Current session 16/02/2005

Query/Command : N

..FILE / ..INFO / ..GUIDE

Query/Command : FILE PLUSPAT

QUESTEL - Time in minutes : 0,65  
The cost estimation below is based on Questel's  
standard price list

Estimated cost : 0.70 USD  
Cost estimated for the last database search : 0.70 USD  
Estimated total session cost : 0.70 USD

Selected file: PLUSPAT

PLUSPAT - (c) Questel-Orbit, All Rights Reserved.  
Comprehensive Worldwide Patents database  
New Patent Citation Commands & FAM Citation Report - see INFO PATCITE  
Announcing enhanced searchability of Relevancy Codes in Search Reports  
for EP, WO and FR patents. For more details see below and on QO website  
-To retrieve set of high relevancy X coded cited patents, use xctx=yes  
-To extract cited patents with only high relevancy code, use mem/xctx  
Last update of file: 2005/02/09 (YYYY/MM/DD) 2005-05/UP (last update)

Search statement 1

Query/Command : US6413479/PN

\*\* SS 1: Results 1

Search statement 2

Query/Command : PRT FULL NONSTOP LEGALALL

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1/1 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6413479 B1 20020702 [US6413479]  
TI - (B1) Reforming apparatus for making a co-reduced reformed gas  
PA - (B1) MATSUSHITA ELECTRIC WORKS LTD (JP)  
PA0 - Matsushita Electric Works, Ltd., Osaka [JP]  
IN - (B1) KUDO HITOSHI (JP); SHINAGAWA MIKIO (JP); YAMAGA NORIYUKI (JP)

**AP** - US21400198 19981224 [1998US-0214001]

**FD** - PCT/JP97/02265 19970630 [1997WO-JP02265]  
WO98/00361 19980108 [WO9800361]

**PR** - JP17048396 19960628 [1996JP-0170483]  
WOJP9702265 19970630 [1997WO-JP02265]

**IC** - (B1) C01B-003/22

**EC** - B01J-008/04D3B  
B01J-008/04D4  
B01J-008/04H  
C01B-003/38B  
C01B-003/48  
C01B-003/58B  
H01M-008/06B2C  
H01M-008/06C

**ICO** - L01J-208/00C2R  
M01B-203/08B12  
M01B-203/08B2  
M01B-203/08B2B  
M01B-203/08B4  
M01B-203/08B4B

**PCL** - ORIGINAL (O) : 422198000; CROSS-REFERENCE (X) : 048061000  
048199000FM 208133000 422188000 423651000

**DT** - Corresponding document

**CT** - US5226928; US5458857; US5658681; EP199878; EP0199878; EP435642;  
EP533232; EP600621; JP61247601; JP1183401; JP1282113; JP4170301;  
JP5251104; JP6219704; JP07126001; JP7126001; JP8-106914; WO9800878  
An English Language abstract of JP 7-126001.

An English Language abstract of JP 6-219704.

An English Language abstract of JP 1-183401.

An English Language abstract of JP1-282113.

An English Language abstract of JP 4-170301.

An English Language abstract of JP 5-251104.

Patent Abstract of Japan, vol. 1996 No. 08 Aug. 30, 1996, Abstract of JP-A-8-106914.

**STG** - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

**AB** - This reforming apparatus is provided with a raw material reforming unit including a heat source for generating heat when a fuel gas is burnt and adapted to reaction heat directly from the heat source, steam-reform a material, and produce a reformed gas containing hydrogen as a main component, a shift reaction unit for reducing by a water shift reaction the amount of CO contained in the reformed gas produced in the raw material reforming unit, a CO oxidation unit adapted to further reduce the amount of CO contained in the reformed gas

after the process in the shift reaction unit, by oxidizing the same. These units are united as independent units. These raw material reforming unit, shift reaction unit and CO oxidation unit are arranged so that the shift reaction unit and the CO oxidation unit are indirectly heated by the heat transmitted from the heat source of the raw material reforming unit. The indirect heating is conducted by a method of heat transmission in solid by which heat is transmitted from the outer faces of the combustion chamber via an intermediate member; a method utilizing radiant heat, and a method utilizing heat of a combustion exhaust gas discharged from the combustion chamber. Since this reforming apparatus is provided with these three independent reaction sections united together, it can be miniaturized, and the heat from the heat source can be utilized effectively, and the controlling of temperature in the reaction sections can be done excellently.

**UP** - 2002-28

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*1/1 LGST - ©EPO*

**PN** - US6413479 B1 20020702 [US6413479]

**AP** - US21400198 19981224 [1998US-0214001]

**ACT** - 20040210 US/RF-A  
REISSUE APPLICATION FILED  
EFFECTIVE DATE: 20031126

**UP** - 2004-08

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*1/1 CRXX - ©CLAIMS/RRX*

**PN** - 6,413,479 A 20020702 [US6413479]

**PA** - Matsushita Electric Works Ltd JP

**ACT** - 20031126 REISSUE REQUESTED  
ISSUE DATE OF O.G.: 20040210  
REISSUE REQUEST NUMBER: 10/722166  
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1764

Reissue Patent Number:

Search statement 2

Query/Command : FILE INPADOC

PLUSPAT - Time in minutes : 1,71  
The cost estimation below is based on Questel's  
standard price list

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Estimated cost :	1.40 USD
Cost estimated for the last database search :	6.10 USD
Estimated total session cost :	6.80 USD

LGST - Time in minutes : 0,83  
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standard price list

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The cost estimation below is based on Questel's  
standard price list

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Legal-Status informations	Estimated cost :	0.50 USD
Cost estimated for the last database search	Estimated cost :	8.23 USD
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Selected file: INPADOC

You are now connected to INPADOC  
Covers 1968/1973 thru weekly updates (2005-06)  
For information on content, (...)INFO INPD.

Search statement 1

Query/Command : FAM US6413479/PN

1 Patent Groups

\*\* SS 1: Results 14

Search statement 2

Query/Command : FAMSTATE NONSTOP

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1/14 INPADOC - ©INPADOC

PN - AT 275529 E 20040915 [ATE275529]

TI - REFORMIERUNGSVORRICHTUNG ZUM ERZEUGEN EINES  
SPALTGASES MIT VERRINGERTEM CO-GEHALT.

**IN** - KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - AT 97928525/97-EP 19970630 [1997EP-0928525]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]  
WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
**IC** - C01B-003/48; C01B-003/58; C01B-003/38; B01J-008/02; H01M-008/06

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**2/14 INPADOC - ©INPADOC**

**PN** - AU 32770/97 A1 19980121 [AU9732770]  
**TI** - MODIFICATION APPARATUS  
**IN** - KUDO HITOSHI; YAMAGA NORIYUKI; SHINAGAWA MIKIO  
**PA** - MATSUSHITA ELECTRIC WORKS LTD  
**AP** - AU 32770/97-A 19970630 [1997AU-0032770]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]  
WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
**IC** - C01B-003/48

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**3/14 INPADOC - ©INPADOC**

**PN** - CA 2259386 C 20020625 [CA2259386]  
**TI** - MODIFICATION APPARATUS  
**LA** - ENG  
**IN** - YAMAGA NORIYUKI [JP]; KUDO HITOSHI [JP]; SHINAGAWA MIKIO  
[JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - CA 2259386/97-A 19970630 [1997CA-2259386]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]  
WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
**IC** - C01B-003/48

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**1/1 LEGALI - ©EPO**

**PN** - CA2259386 A1 19980108 [CA2259386]CA2259386 C 20020625 [CA2259386]  
**AP** - CA2259386 19970630 [1997CA-2259386]  
**ACTE** - 20030403 CA/AFNE-A [+]  
NATIONAL PHASE ENTRY  
EFFECTIVE DATE: 19981229  
  
20030403 CA/EEER-A [+]  
EXAMINATION REQUEST  
EFFECTIVE DATE: 19981229  
**UP** - 2004-09

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**4/14 INPADOC - ©INPADOC**

**PN** - CA 2259386 AA 19980108 [CA2259386]  
**TI** - MODIFICATION APPARATUS  
APPAREIL DE MODIFICATION  
**LA** - ENG  
**IN** - YAMAGA NORIYUKI [JP]; KUDO HITOSHI [JP]; SHINAGAWA MIKIO [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - CA 2259386/97-A 19970630 [1997CA-2259386]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]  
WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
**IC** - C01B-003/48

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*1/1 LEGALI - ©EPO*

**PN** - CA2259386 A1 19980108 [CA2259386]CA2259386 C 20020625 [CA2259386]  
**AP** - CA2259386 19970630 [1997CA-2259386]  
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EFFECTIVE DATE: 19981229  
  
20030403 CA/EEER-A [+]  
EXAMINATION REQUEST  
EFFECTIVE DATE: 19981229  
**UP** - 2004-09

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*5/14 INPADOC - ©INPADOC*

**PN** - CN 1094465 C 20021120 [CN1094465]  
**TI** - Modification apparatus  
**IN** - HITOSHI KUDO [JP]; NORIYUKI YAMAGA [JP]; MIKIO SHINAGAWA [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - CN 97195956/97-A 19970630 [1997CN-0195956]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]  
**IC** - C01B-003/48

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*6/14 INPADOC - ©INPADOC*

**PN** - CN 1223622 A 19990721 [CN1223622]  
**TI** - MODIFICATION APPARATUS  
**IN** - HITOSHI KUDO [JP]; NORIYUKI YAMAGA [JP]; MIKIO SHINAGAWA [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - CN 97195956/97-A 19970630 [1997CN-0195956]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]

**IC** - C01B-003/48

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**7/14 INPADOC - ©INPADOC**

**PN** - DE 69730608 C0 20041014 [DE69730608]  
**TI** - Reformierungsvorrichtung zum Erzeugen eines Spaltgases mit verringertem CO-Gehalt.  
**IN** - KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - DE 69730608/97-A 19970630 [1997DE-6030608]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]  
WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
**IC** - C01B-003/48; C01B-003/58; C01B-003/38; B01J-008/02; H01M-008/06

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**8/14 INPADOC - ©INPADOC**

**PN** - EP 922666 B1 20040908 [EP-922666]  
**TI** - Reforming apparatus for making a CO-reduced reformed gas.  
Appareil de reformage pour produire un gaz reformé de teneur CO réduite  
Reformierungsvorrichtung zum Erzeugen eines Spaltgases mit verringertem CO-Gehalt.  
**LA** - ENG  
**IN** - KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - EP 97928525/97-A 19970630 [1997EP-0928525]  
**PR** - WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
JP 170483/96-A 19960628 [1996JP-0170483]  
**IC** - C01B-003/48; C01B-003/58; C01B-003/38; B01J-008/02; H01M-008/06  
**DS** - AT\* BE\* CH\* DE\* DK\* ES\* FI\* FR\* GB\* GR\* IE\* IT\* LI\* LU\* MC\* NL\*  
PT\* SE\*

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**1/1 LEGALI - ©EPO**

**PN** - EP0922666 A1 19990616 [EP-922666]EP0922666 A4 19991215 [EP-922666]  
EP0922666 B1 20040908 [EP-922666]  
**AP** - EP97928525 19970630 [1997EP-0928525]  
**ACTE** - 19990616 EP/AK-A [+]  
DESIGNATED CONTRACTING STATES:  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

19990616 EP/17P-A [+]  
REQUEST FOR EXAMINATION FILED  
EFFECTIVE DATE: 19990127

19991215 EP/AK-A [+]  
DESIGNATED CONTRACTING STATES:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

19991215 EP/A4-A [+]  
SUPPLEMENTARY SEARCH REPORT  
EFFECTIVE DATE: 19991103

19991215 EP/RIC1-A  
CLASSIFICATION (CORRECTION)  
6C 01B 3/48 A, 6C 01B 3/58 B, 6C 01B 3/38 B, 6B 01J 8/02 B, 6H 01M 8/06 B

20020417 EP/17Q-A [+]  
FIRST EXAMINATION REPORT  
EFFECTIVE DATE: 20020306

20040630 EP/RTI1-A  
TITLE (CORRECTION)  
REFORMING APPARATUS FOR MAKING A CO-REDUCED REFORMED  
GAS.

20040908 EP/AK-A [+]  
DESIGNATED CONTRACTING STATES:  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20040908 EP/REG-A; GB/FG4D [+]  
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20040915 EP/REG-A; CH/EP [+]  
CH: ENTRY IN THE NATIONAL PHASE  
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20041006 EP/REG-A; IE/FG4D [+]  
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CORRESPONDS TO:  
(DE 69730608 20041014 [DE69730608])

20041130 EP/REG-A; CH/NV  
CH: NEW AGENT  
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REPRESENTATIVE: OK PAT AG PATENTE MARKEN LIZENZEN

UP - 2004-50

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9/14 INPADOC - ©INPADOC

PN - EP 922666 A1 19990616 [EP-922666]

TI - Reforming apparatus for making a CO-reduced reformed gas.  
Appareil de reformage pour produire un gaz reformé de teneur CO réduit

Reformierungsvorrichtung zum Erzeugen eines Spaltgases mit verringertem CO-Gehalt.

**LA** - ENG  
**IN** - KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - EP 97928525/97-A 19970630 [1997EP-0928525]  
**PR** - WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
JP 170483/96-A 19960628 [1996JP-0170483]  
**IC** - C01B-003/48  
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*1/1 LEGALI - ©EPO*

**PN** - EP0922666 A1 19990616 [EP-922666]EP0922666 A4 19991215 [EP-922666]  
EP0922666 B1 20040908 [EP-922666]

**AP** - EP97928525 19970630 [1997EP-0928525]

**ACTE** - 19990616 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

19990616 EP/17P-A [+]

REQUEST FOR EXAMINATION FILED

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19991215 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

19991215 EP/A4-A [+]

SUPPLEMENTARY SEARCH REPORT

EFFECTIVE DATE: 19991103

19991215 EP/RIC1-A

CLASSIFICATION (CORRECTION)

6C 01B 3/48 A, 6C 01B 3/58 B, 6C 01B 3/38 B, 6B 01J 8/02 B, 6H 01M 8/06 B

20020417 EP/17Q-A [+]

FIRST EXAMINATION REPORT

EFFECTIVE DATE: 20020306

20040630 EP/RTI1-A

TITLE (CORRECTION)

REFORMING APPARATUS FOR MAKING A CO-REDUCED REFORMED GAS.

20040908 EP/AK-A [+]

DESIGNATED CONTRACTING STATES:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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CH: ENTRY IN THE NATIONAL PHASE  
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20041006 EP/REG-A; IE/FG4D [+]  
IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND  
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(DE 69730608 20041014 [DE69730608])

20041130 EP/REG-A; CH/NV  
CH: NEW AGENT  
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REPRESENTATIVE: OK PAT AG PATENTE MARKEN LIZENZEN

**UP** - 2004-50

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*10/14 INPADOC - ©INPADOC*

**PN** - EP 922666 A4 19991215 [EP-922666]  
**TI** - MODIFICATION APPARATUS  
APPAREIL DE MODIFICATION  
VORRICHTUNG ZUR VERNDERUNG  
**LA** - ENG  
**IN** - KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]  
**AP** - EP 97928525/97-A 19970630 [1997EP-0928525]  
**PR** - WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
JP 170483/96-A 19960628 [1996JP-0170483]  
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PT\* SE\*

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**PN** - EP0922666 A1 19990616 [EP-922666]EP0922666 A4 19991215 [EP-922666]  
EP0922666 B1 20040908 [EP-922666]  
**AP** - EP97928525 19970630 [1997EP-0928525]  
**ACTE** - 19990616 EP/AK-A [+]  
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19990616 EP/17P-A [+]  
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EFFECTIVE DATE: 19990127

19991215 EP/AK-A [+]  
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AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

19991215 EP/A4-A [+]  
SUPPLEMENTARY SEARCH REPORT  
EFFECTIVE DATE: 19991103

19991215 EP/RIC1-A  
CLASSIFICATION (CORRECTION)  
6C 01B 3/48 A, 6C 01B 3/58 B, 6C 01B 3/38 B, 6B 01J 8/02 B, 6H 01M 8/06 B

20020417 EP/17Q-A [+]  
FIRST EXAMINATION REPORT  
EFFECTIVE DATE: 20020306

20040630 EP/RTI1-A  
TITLE (CORRECTION)  
REFORMING APPARATUS FOR MAKING A CO-REDUCED REFORMED  
GAS.

20040908 EP/AK-A [+]  
DESIGNATED CONTRACTING STATES:  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

20040908 EP/REG-A; GB/FG4D [+]  
GB: EUROPEAN PATENT GRANTED  
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20040915 EP/REG-A; CH/EP [+]  
CH: ENTRY IN THE NATIONAL PHASE  
<CH>

20041006 EP/REG-A; IE/FG4D [+]  
IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND  
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20041014 EP/REF-A  
CORRESPONDS TO:  
(DE 69730608 20041014 [DE69730608])

20041130 EP/REG-A; CH/NV  
CH: NEW AGENT  
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REPRESENTATIVE: OK PAT AG PATENTE MARKEN LIZENZEN

UP - 2004-50

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11/14 INPADOC - ©INPADOC

PN - JP 3403416 B2 20030506 [JP3403416]  
AP - JP 503990/98-A 19970630 [1998JP-0503990]  
PR - JP 170483/96-A 19960628 [1996JP-0170483]  
WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
IC - C01B-003/38; C01B-003/48

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12/14 INPADOC - ©INPADOC

PN - KR 2000022546 A 20000425 [KR0022546]  
TI - MODIFICATION APPARATUS  
IN - KUDO HITOSHI [KR]; YAMAGA NORIYUKI [KR]; SHINAGAWA MIKIO [KR]  
PA - MATSUSHITA ELECTRIC WORKS LTD  
AP - KR 98710994/98-T 19981228 [1998KR-0710994]  
PR - JP 170483/96-A 19960628 [1996JP-0170483]  
IC - C01B-003/48

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13/14 INPADOC - ©INPADOC

PN - US 6413479 BA 20020702 [US6413479]  
TI - Reforming apparatus for making a co-reduced reformed gas  
IN - KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
PA - MATSUSHITA ELECTRIC WORKS LTD [JP]  
AP - US 214001/98-A 19981224 [1998US-0214001]  
PR - JP 170483/96-A 19960628 [1996JP-0170483]  
WO 9702265/97(JP)-W 19970630 [1997WO-JP02265]  
IC - C01B-003/22

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1/1 LEGALI - ©EPO

PN - US6413479 B1 20020702 [US6413479]  
AP - US21400198 19981224 [1998US-0214001]  
ACTE - 20040210 US/RF-A  
REISSUE APPLICATION FILED  
EFFECTIVE DATE: 20031126  
UP - 2004-08

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14/14 INPADOC - ©INPADOC

PN - WO 9800361 A1 19980108 [WO9800361]  
TI - MODIFICATION APPARATUS

## APPAREIL DE MODIFICATION

**LA** - JAP  
**IN** - KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
**PA** - MATSUSHITA ELECTRIC WORKS LTD [JP]; KUDO HITOSHI [JP]; YAMAGA NORIYUKI [JP]; SHINAGAWA MIKIO [JP]  
**AP** - WO JP 9702265/97(JP)-A 19970630 [1997WO-JP02265]  
**PR** - JP 170483/96-A 19960628 [1996JP-0170483]  
**IC** - C01B-003/48  
**DS** - AL\* AM\* AT\* AU\* AZ\* BA\* BB\* BG\* BR\* BY\* CA\* CH\* CN\* CU\* CZ\* DE\* DK\* EE\* ES\* FI\* GB\* GE\* GH\* HU\* IL\* IS\* JP\* KE\* KG\* KR\* KZ\* LC\* LK\* LR\* LS\* LT\* LU\* LV\* MD\* MG\* MK\* MN\* MW\* MX\* NO\* NZ\* PL\* PT\* RO\* RU\* SD\* SE\* SG\* SI\* SK\* SL\* TJ\* TM\* TR\* TT\* UA\* UG\* US\* UZ\* VN\* YU\* ZW\* AM\* AZ\* BY\* KG\* KZ\* MD\* RU\* TJ\* TM\* GH KE LS MW SD SZ UG ZW AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT

## 1/1 LEGALI - ©EPO

**PN** - WO9800361 A1 19980108 [WO9800361]  
**AP** - WOJP9702265 19970630 [1997WO-JP02265]  
**ACTE** - 19980108 WO/AK [+]  
 DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT  
 AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI  
 GB GE GH HU IL IS JP KE KG KR KZ LC LK LR LS LT LU LV MD MG  
 MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
 UA UG US UZ VN YU ZW AM AZ BY KG KZ MD RU TJ TM

19980108 WO/AL [+]  
 DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT  
 GH KE LS MW SD SZ UG ZW AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT

19980219 WO/DFPE  
 REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE

19980429 WO/121  
 EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION

19981224 WO/ENP  
 ENTRY INTO THE NATIONAL PHASE IN:  
 US 1998 214001A 19981224 [1998US-0214001]

19981229 WO/ENP  
 ENTRY INTO THE NATIONAL PHASE IN:

CA 2259386A [1997CA-2259386]

19990422 WO/REG; DE/8642 [-]  
DE: IMPACT ABOLISHED FOR DE  
<DE>

**UP** - 2003-22

Search statement 2